

Title (en)

METHOD FOR ANCHORING A JOINING ELEMENT IN AN OBJECT AND JOINING ELEMENT TO BE USED IN THE METHOD

Title (de)

VERFAHREN ZUR VERANKERUNG EINES VERBINDUNGSELEMENTS IN EINEM OBJEKT UND IN DIESEM VERFAHREN VERWENDETES VERBINDUNGSELEMENT

Title (fr)

PROCÉDÉ D'ANCRAGE D'UN ÉLÉMENT DE JONCTION DANS UN OBJET ET ÉLÉMENT DE JONCTION À UTILISER DANS LE PROCÉDÉ

Publication

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Application

EP 16186856 A 20071206

Priority

- US 88224806 P 20061228
- EP 07845617 A 20071206
- CH 2007000614 W 20071206

Abstract (en)

A joining element to be anchored in an object (10) with the aid of a thermoplastic material and mechanical vibration comprises a wall anchoring portion (3.2) having a circumferential surface which comprises the thermoplastic material and energy directors. The joining element comprises a central tube (2.1) reaching to the distal end, the central tube ending in a distal edge comprising the thermoplastic material. The joining element is anchored in an opening (5) provided in the object (10). For anchoring the joining element in the opening (5), mechanical vibrations e.g. ultrasonic vibrations are coupled into the joining element and the latter is forced into the opening (5). Thereby, the thermoplastic material of the circumferential surface of the wall anchoring portion (3.2) is liquefied and pressed into the opening wall.

IPC 8 full level

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Citation (applicant)

- WO 9842988 A1 19981001 - CREAOLIC SA [CH], et al
- WO 0079137 A1 20001228 - WOODWELDING AG [CH], et al

Citation (search report)

- [X] US 5007779 A 19910416 - GORAN JAMES L [US]
- [A] US 5437750 A 19950801 - RINSE OFFRINGA ARNT [NL], et al
- [A] WO 2006002569 A1 20060112 - WOODWELDING AG [CH], et al

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